

IN THE CLAIMS:

1. (Currently Amended) A shock absorber for a vehicle comprising:
a cylinder;
a piston reciprocally disposed in the cylinder; and
magnetic field generating unit for generating a magnetic field in a radial direction of the piston, the magnetic field generating unit includes a plurality of unit magnets wherein each of the unit magnets is substantially ring-shaped and generate a magnetic field substantially perpendicular to a direction of motion of the piston;

wherein the magnetic field generating unit is mounted at one of an interior side of the cylinder or an exterior side of the piston; and

an interior side of the cylinder or an exterior side of the piston opposite the magnetic field generating unit is formed of a metallic material with relatively high electrical conductivity.

2. (Original) The shock absorber of claim 1, further comprising first and second permanent magnets respectively mounted at an uppermost side of the piston and an uppermost interior side of the cylinder, the first and second permanent magnets having opposing polarities.

3. Canceled

4. (Original) The shock absorber of claim 1, wherein the magnetic field generating unit is mounted at the interior side of the cylinder and a predetermined thickness of the exterior side of the piston is made of a copper material.

5. (Original) The shock absorber of claim 1, wherein the magnetic field generating unit is mounted at the exterior side of the piston and a predetermined thickness of the interior side of the cylinder is made of a copper material.

6. (Original) The shock absorber of claim 1, further comprising a first spring applying an elastic force to the piston in a moving direction of the piston.

7. (Original) The shock absorber of claim 6, wherein the first spring is disposed above the uppermost side of the piston.

8. (Currently Amended) ~~The shock absorber of claim 7, further comprising:~~ A shock absorber for a vehicle comprising:

a cylinder;

a piston reciprocally disposed in the cylinder;

magnetic field generating unit for generating a magnetic field in a radial direction of the piston, wherein the magnetic field generating unit is mounted at one of an interior side of the cylinder or an exterior side of the piston and an interior side of the cylinder or an exterior side of the piston opposite the magnetic field generating unit is formed of a metallic material with relatively high electrical conductivity;

a first spring applying an elastic force to the piston in a moving direction of the piston, wherein the first spring is disposed above the uppermost side of the piston;

a second spring disposed at an end of the first spring distal to the piston; and

a rubber member disposed between the first and second springs.

9. (Original) The shock absorber of claim 6, wherein spring supporters are disposed at a lower portion of the piston and an upper portion of the cylinder, and the first spring is abutted between the spring supporters.

10. (Original) The shock absorber of claim 1, further comprising a rotation restricting unit for restricting rotation of the piston when the piston reciprocates.

11. (Original) The shock absorber of claim 10, wherein the rotation restricting unit comprises:

a guide groove longitudinally formed at the piston; and

a guide member mounted on an interior wall of the cylinder, the guide member having a projection at a position corresponding to the guide groove.

12. (Original) The shock absorber of claim 10, wherein the rotation restricting unit comprises:

a guide projection longitudinally formed at the piston; and

a guide member mounted on an interior wall of the cylinder, the guide member having a groove at a position corresponding to the guide projection.

13. (New) A shock absorber, comprising:

a longitudinally extending cylinder;

a piston reciprocally disposed within said cylinder; and

at least one magnetic field generating unit for generating a magnetic field in a radial direction substantially perpendicular to a longitudinal axis of said cylinder,

wherein the magnetic field generating unit is coupled at either an interior surface of the cylinder or an exterior surface of the piston and an interior surface of the cylinder or an exterior surface of the piston, opposite the magnetic field generating unit, is formed of a metallic material with relatively high electrical conductivity.